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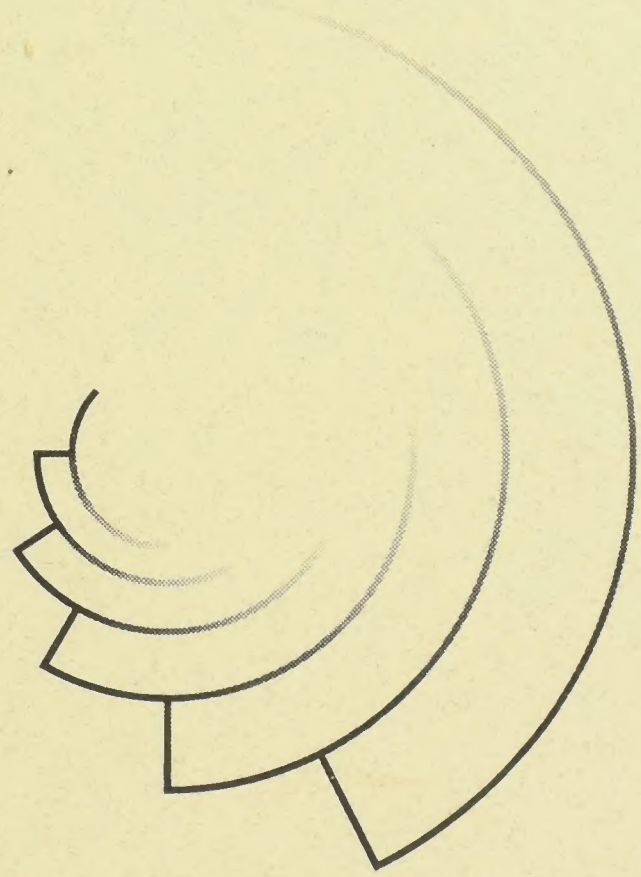

Lead Agency

U.S.D.I. Bureau of Land Management
Las Cruces District Office
Mimbres Resource Area

Cooperating Agency

U.S.D.A. Forest Service
Silver City Ranger District
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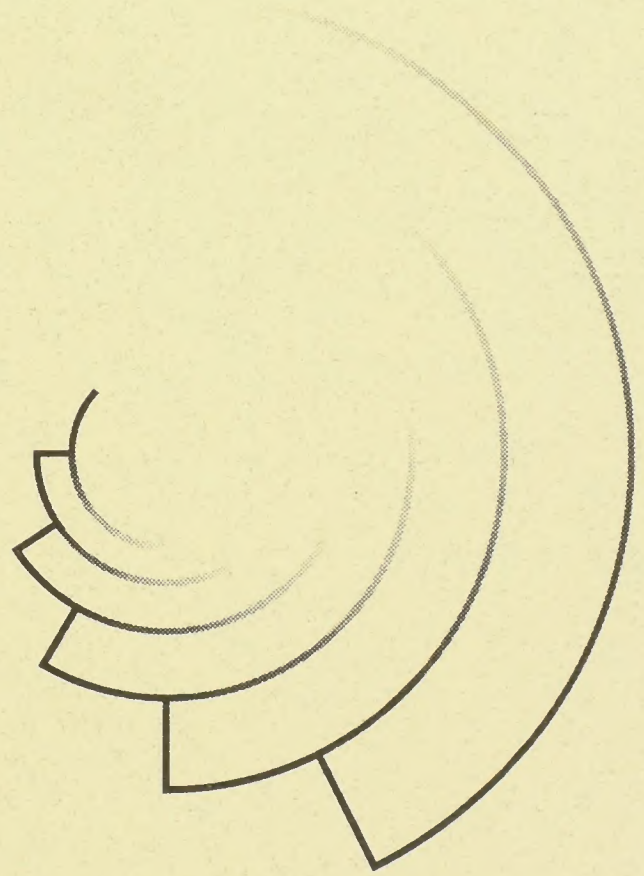

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BLM-NM-PL-98-001-1793

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Las Cruces District Office
1800 Marquess St.
Las Cruces, New Mexico 88005

IN REPLY REFER TO:
3809 (036)
1793 (036)

DEC 0 4 1997

Dear Reader:

Enclosed is the Record of Decision (ROD) for the *Little Rock Mine Project Final Environmental Impact Statement (EIS)*. This document records the Bureau of Land Management's (BLM's) and the USDA Forest Service's decision on the proposal by the Phelps Dodge Mining Company in Grant County, New Mexico. The Phelps Dodge proposal was the proposed action analyzed in the Little Rock Mine Project Final EIS. Other alternatives, including the "no-action" alternative, were also analyzed. Because the proposed project includes a portion of the Gila National Forest lands, the Forest Service has been a cooperating agency for this project.

This ROD has been sent to all recipients of the Little Rock Mine Project Final EIS. A Notice of Availability of this ROD will be published in the *Federal Register* on or about December 12, 1997. Release of this ROD to interested groups, agencies, and individuals serves as public notice of the decision. Additional copies are available from the BLM and Forest Service offices listed in the ROD.

BLM Appeal Process

Any person adversely affected by this decision may appeal such action to the Interior Board of Land Appeals pursuant to 43 CFR Part 4. An appeal must be filed in the office of the Bureau Officer making the decision within 30 days after receipt of the decision. The decision will become effective on the day after expiration of the 30 days unless a petition for a stay pursuant to 43 CFR 4.21 is filed together with a timely notice of appeal.

Forest Service Appeal Process

This decision is subject to appeal in accordance with 36 CFR 215 regulations for those actions on National Forest System lands. Any appeal of this decision must be fully consistent with 36 CFR 215.14 (content of an appeal) and must provide sufficient evidence and rationale to show why the Responsible Official's decision should be remanded or reversed. Appeals must be in writing and must be postmarked and sent to the Appeal Deciding Officer within 45 days of the date the notice of decision for this project is published in the Silver City Daily Press. The Appeals Deciding Officer for this project is the Regional Forester, USDA Forest Service, Southwestern Region, 517 Gold Avenue, SW, Albuquerque, NM 87102-0084.

The appeal period is 45 days and begins the day following publication of the legal notice documenting the decision in the Silver City Daily Press.

Forest Service appeal regulation 36 CFR 215 requires that if no appeal is filed, implementation of this project on the National Forest land automatically be stayed until five business days after the close of the appeal filing period. If an appeal is filed, the decision will not be implemented until 15 calendar days following the date of the appeal disposition. The Forest Service will not approve the Plan of Operations until its internal administrative review process has been completed. Forest Service approval of the Plan of Operations for the project is implementation of the project and, as such, is not subject to appeal pursuant to 36 CFR 215.8(b).

Contacts

For additional information concerning this project, contact Juan Padilla, Team Coordinator; Bureau of Land Management; 1800 Marquess Street; Las Cruces, NM 88005; Telephone (505) 525-4376.

For additional information concerning the Forest Service appeal process, contact District Ranger Gerald Engel; Silver City Ranger District; 3005 E. Camino del Bosque; Silver City, NM 80061; Telephone (505) 388-8430.

We would like to express our appreciation to the many organizations and individuals who contributed to the preparation of the Little Rock Mine Project Final EIS and to this decision. We look forward to any further comment you may have that will assist us in managing the public lands.

Sincerely,

Stephanie Hargrove

Stephanie Hargrove
Area Manager
Mimbres Resource Area

Enclosure

RECORD OF DECISION
AND
PLAN OF OPERATIONS APPROVAL

Little Rock Mine Project

U.S. Department of the Interior
Bureau of Land Management
Las Cruces District
Las Cruces, New Mexico 88005

Approved by:

Linda S.C. Rundell

Linda S.C. Rundell
District Manager
Las Cruces District
Bureau of Land Management

DEC 0 4 1997

Date

Abel M. Camarena

Abel M. Camarena
Forest Supervisor
Gila National Forest

DEC 0 4 1997

Date

INTRODUCTION

The Little Rock Mine Project is located approximately seven miles south of Silver City in southwestern New Mexico. The proposed mine site occupies an existing, non-operational mine west of the Phelps Dodge Mining Company (PDMC) operations at Tyrone. PDMC estimates that approximately 100 million tons of leachable ore and 60 million tons of waste could be removed from the pit and processed at existing, permitted sites at PDMC's Tyrone Mine facility. The proposed project would also require the construction of a haul road that will enable PDMC to transport ore from the Little Rock Mine pit to the existing Tyrone operations for processing.

PDMC submitted the Plan of Operations to the Bureau of Land Management (BLM) Mimbres Resource Area in October 1993 for the proposed re-establishment, operation, and reclamation of the Little Rock Mine. The proposed project area includes lands administered by the Las Cruces District of the BLM; Silver City Ranger District of the Gila National Forest; and private, patented lands owned by PDMC and MM Holdings of San Jose, California. The permit area contains approximately 375 acres of BLM land and 46 acres of Forest Service land.

The BLM served as the lead federal agency for the preparation of an environmental impact statement (EIS) in accordance with the National Environmental Policy Act (NEPA) of 1969. The Forest Service is a cooperating federal agency.

DECISION

This Record of Decision constitutes the final BLM and Forest Service decisions for the Little Rock Mine Project Environmental Impact Statement (EIS) and Plan of Operations for the Phelps Dodge Mining Company's proposed open-pit copper mine located near the Tyrone Mine in Grant County, New Mexico. The decision is to implement Alternative 2, the proposed action and agency preferred alternative presented in Chapter 2 of the Little Rock Mine Project Final EIS and the environmental protection measures included in this Record of Decision.

PROPOSED ACTION AND ALTERNATIVES

Several action alternatives and the no-action alternative were considered in detail in the EIS. Each of the action alternatives, including the proposed action, would achieve the overall objective with some modification. The proposed action and other action alternatives would all require the diversion of California Gulch. The proposed action would result in a pit lake after mining operations cease, while the partial backfill alternative would allow water to drain out of the pit. Alternative haul road routes and stream diversion locations were also considered in detail in the EIS, as described below.

Proposed Action (Alternative 2)

The project would be a conventional open-pit mining operation with a production rate of as high as 160,000 tons of material per day during a two- to four-year period. All material mined from the Little

Rock Mine pit would be transported to the existing Tyrone Mine facilities via a haul road to be constructed from the Tyrone Mine to the project site. All leachable ore will be processed at existing permitted processing sites at the Tyrone Mine.

The mine pit and haul road would disturb approximately 226 acres of land, including 63 acres that remain disturbed from previous mining activities not associated with the Little Rock Mine Project. The haul road (Alternative Route B) would be constructed across Deadman Canyon at the 5,850-foot elevation. Dewatering of the pit would be achieved by pumping the water diverted from California Gulch and other surface water inflow from the pit bottom (Stream Diversion Alternative SD-3). The water would be discharged to the existing No. 1X Tailing Dam in accordance with applicable regulations or used for process make-up water while mining is in progress.

Associated facilities required for future mining of this site would consist of a dewatering system, a water pipeline and fill station to provide water for dust suppression, a 46kV power distribution system, and temporary operating and maintenance facilities. These facilities would be removed upon completion of mining.

Partial Backfill Alternative

The open pit would be partially backfilled to an elevation of approximately 5,800 feet after mining ceases. A 100-foot-wide drainage channel would be constructed to prevent upstream surface and ground water collected at the pit from ponding, and allow it to flow through the east wall of the pit into Deadman Canyon. Approximately 45 million tons of waste rock material would be removed from the pit and stockpiled during mine operation, then used as backfill to achieve the necessary gradient for uninterrupted flow and discharge. Any of the haul route and stream diversion location alternatives considered for the proposed action could be constructed with the partial backfill alternative.

Haul Road Alternative Routes

Haul Road Alternative A—This route begins at the north side of the open pit, goes northeast and east and crosses Deadman Canyon, continuing south to the No. 2 and No. 2A Leach Stockpiles.

Haul Road Alternative B (Proposed Action)—This route begins at the east end of the open pit, goes southeast, then north to follow contours across Deadman Canyon at about the 5,900-foot elevation. From the canyon crossing, the route turns to the southeast, continuing to the No. 2 and No. 2A Leach Stockpiles. Waste material would be deposited on Phelps Dodge property near the No. 2A Stockpile.

Haul Road Alternative C—This route is similar to Alternative B, but more direct. It would require a larger amount of fill at the Deadman Canyon crossing.

California Gulch Stream Diversion Alternative Locations

Pit operations require the diversion of California Gulch once the pit reaches and extends below the level of the drainage channel. The diversion structure would divert normal flows into a pipeline, and runoff from large storm events would be diverted into an open channel, both of which would discharge to one of the following alternative locations:

- **Whitewater Canyon (SD-1)**—westward diversion by constructed pipe and channel from the pit to Whitewater Canyon; may be temporary or permanent

- **Tributary to Whitewater Canyon (SD-2)**—westward diversion along pit rim to tributary of Whitewater Canyon; may be temporary or permanent

- **Diversion to Open Pit (SD-3, Proposed Action)**—water diverted to pit is pumped to the No. 1X Tailing Dam or used for process make-up water

No Action

The permit area and proposed mine site would remain as they are. There would be no diversion of California Gulch nor would a haul road be constructed. Existing leach and waste stockpiles from the previous mining operations would not be removed by PDMC, resulting in the continued degradation of surface and ground water currently being affected.

Alternatives Eliminated from Detailed Analysis

Alternatives to completely backfill the pit, process mined materials on site, open the pit to California Gulch, expand the project to include additional ore bodies, create a stream diversion along the south pit wall, and create an upstream diversion were initially considered and eliminated from detailed analysis. A description of each of the alternatives and rationale for their elimination from detailed analysis are included in the Little Rock Mine Project Final EIS.

ENVIRONMENTALLY PREFERABLE ALTERNATIVE

An environmentally preferable alternative is one that causes the least damage to the physical and biological environment and that best protects, preserves, and enhances historic, cultural, and natural resources. The no-action alternative best meets this definition since no additional disturbance would take place if no action was implemented. The no-action alternative was not selected because it would not meet the purpose and need for the project in response to the applicant's proposal. The applicant has a statutory right to mine. The role of the BLM and Forest Service is to review the proposal to minimize adverse environmental impacts to the surface resources to the extent feasible with mitigation measures applied. Also, under the no-action scenario, the existing leach and waste stockpiles would not be removed by PDMC, resulting in continued surface and ground water degradation.

Of the haul road and stream diversion alternatives, as described above, the Haul Road Alternative B and Stream Diversion Alternative SD-3 are environmentally preferred. These were selected as part of Alternative 2, the proposed action. The proposed action, that would result in a pit lake, is preferable to the partial backfill alternative for the reasons indicated below.

RATIONALE FOR DECISION AND MANAGEMENT CONSIDERATIONS

The BLM and Gila National Forest have identified the proposed action (Alternative 2) as the agency preferred alternative in the Final EIS. The General Mining Law of 1872 (as amended), the Mining and Mineral Policy Act of 1970, and the Federal Land Policy and Management Act of 1976 support national policy to foster and encourage the discovery and development of domestic mineral resources. As stated in Title 43 of the Code of Federal Regulations (CFR), part 3809:

> Under the mining laws a person has a statutory right, consistent with Departmental regulations, to go upon the open (unappropriated and unreserved) federal lands for the purpose of mineral prospecting, exploration, development, extraction and other uses reasonably incident thereto. This statutory right carries with it the responsibility to assure that operations include adequate and responsible measures to prevent unnecessary or undue degradation of the federal lands and to provide for reasonable reclamation.

A similar purpose regarding National Forest land can be found in 36 CFR 228.

The proposed action presented in the Final EIS complies with these laws and regulations. The decision to allow the proposed action is in conformance with the current land use plans for the BLM Las Cruces District, the Gila National Forest, and the Grant County Comprehensive Plan.

The National Forest land within the Little Rock project area is located within Management Area 7A. The activities proposed on the National Forest land under Alternative 2 are consistent with the 1986 Gila National Forest Land Management Plan. Threatened, endangered, or sensitive species are not affected. The cultural resource clearance has been completed with concurrence by the New Mexico State Historic Preservation Officer. No floodplains or wetlands are located on the National Forest portion of the project.

For the proposed action, water would be contained in the pit instead of draining into Deadman Canyon, as proposed with the partial backfill alternative. In the short term, water quality degradation that may result in the pit lake would not occur if the partial backfill alternative is implemented. In the long term, however, positive effects to surface and ground water quality will take place when the pit lake is established.

In combination with the proposed action, Haul Road Route B is preferred because it would result in less surface disturbance than Route A, and the canyon crossing would require less fill than Route C. The stream diversion Alternative SD-3 is preferred compared to Alternative SD-1, drainage to Whitewater Creek, because it would have less surface disturbance and less visual impact. The effects of Alternative SD-2 are very similar to Alternative SD-3.

Implementation of this decision with the identified environmental protection measures will not cause undue or unnecessary degradation of the public lands. All practicable means to avoid or minimize environmental harm from the selected alternative have been adopted. Monitoring will be established to allow further refinement of the environmental protection measures. All environmental protection measures and monitoring requirements will be implemented and enforced.

Comments Received Since Publication of the Final EIS

During the 30-day availability period following publication of the Final EIS, BLM received six comment letters. All comments were analyzed for inclusion in the decision-making process. None of the comments identified significant issues not previously addressed or introduced new significant information, so no revisions to the EIS were necessary. Several comments raised valid concerns which were addressed by the Las Cruces District Manager in written responses. The following modifications and corrections are a result of comments received on the Final EIS.

The environmental protection measures have been amended to address the concern for potential effects on wildlife and migratory waterfowl. A provision has been added to assure compliance with the Migratory Bird Treaty Act.

Two corrections were acknowledged regarding updates to the status of federally listed species. The Chiricahua leopard frog is a "candidate species" and was erroneously described as a "former Category 2 candidate" on page A-32 of the appendix to the Final EIS. The "S" should be changed to a "C" in Table 3-9, page 3-34. The southwestern willow flycatcher was accurately identified as an endangered species in Table 3-9, page 3-34, but the description on page A-22 should be updated to read that it is "listed as an endangered species" instead of "proposed for listing . . . "

Social, Economic, and Environmental Factors

Approval of the proposed action and plan of operations would allow for the mining of significant ore reserves at the Little Rock Mine site, continuation of processing and copper recovery at the existing Tyrone Mine facilities, and removal of existing leach and waste stockpiles from previous mining activity.

The following is a summary of the major impact conclusions that are predicted as a result of the implementation of the proposed action and alternatives considered in the EIS. Refer to Chapters 2 and 4 of the Final EIS for detailed descriptions of the alternatives and impacts.

Surface water flows would be altered by the diversion of California Gulch. The result of the proposed action would be a net decrease of flow into Mangas Creek by about nine percent of the contributing drainages in the area. By comparison, the partial backfill alternative would result in a slight annual average increase in flow to Deadman Canyon. Stream diversion alternatives SD-1 and SD-2 would each result in increased flows into Whitewater Canyon.

Removal of the existing leach and waste stockpiles will have the beneficial effect of improving the surface and ground water quality in the affected downgradient areas where state surface water quality

standards have been exceeded for aluminum, cobalt, and copper; and state ground water standards have been exceeded for total dissolved solids, fluoride, sulfate, other metals, and pH.

Ground water drawdowns of up to 10 feet are predicted at distances of up to 7,000 feet from the pit due to dewatering during mining. The water level at one residential well near the mine would decrease by 10 to 20 feet, until equilibrium is reached in at least 50 years. The wells at Burro Mountain Homestead and another residence would be affected by temporary drawdowns of one to five feet. Two springs and several seeps are located within the zone of influence from pit dewatering, but it is uncertain whether the drawdown would affect these features. Drawdowns resulting from the partial backfill alternative would occur within a smaller zone and equilibrium would be reached earlier.

Geochemical studies conducted for the EIS estimate that the copper concentration in pit lake water may range approximately from 0.19 mg/l to 0.55 mg/l. Therefore, the study estimates in the worst case scenario copper may slightly exceed the state livestock watering standard (0.5 mg/l). The studies also estimate that flouride concentrations in the pit lake may exceed the state ground water quality standard. Geochemical evaluations of the oxide and sulfide rock types likely to be exposed in the pit show that acid generation is not anticipated because of the acid neutralizing capability of the minerals present. The studies also report that no adverse impacts to water quality would result from waste rock disposal and haul road construction.

Potential soil erosion would occur on a total of 186 surface acres in the pit area, including approximately 63 acres that were previously disturbed, plus an additional 40 acres of surface disturbance for the proposed haul road (Route B). The reclamation and closure plans will be implemented to mitigate soil erosion impacts.

Implementation of any of the action alternatives, including the proposed action, could potentially result in minor impacts to biological resources. Construction of the pit would disturb a combined total of 106 acres of grasslands, juniper grasslands, piñon-juniper woodlands, and ponderosa pine forest. The haul road associated with the proposed action (Route B) would disturb 40 acres of similar woodland/grassland vegetation, compared to 58 acres for Route A or 27 acres for Route C. There would be no adverse impacts to riparian areas or special status (threatened and endangered) species. The pit lake could provide foraging opportunities or habitat for migratory birds, amphibians, and spotted or occult little brown bats.

Beneficial socioeconomic effects are anticipated with the re-establishment of the Little Rock Mine. The benefits are primarily attributed to the continuing revenue generated from state and local taxes, primary employment, and the support of secondary employment opportunities for local and statewide vendors. The annual contribution to the Grant County economy by the Phelps Dodge Tyrone Branch was estimated at $47.5 million in 1993.

Impacts to range, recreation, transportation, or other land uses would be negligible. Impacts to visual resources are not anticipated to be high due to the existing disturbance at the proposed mine site and the lack of potential viewers in the study area.

Impacts to cultural resources include effects to two prehistoric and four historic archaeological sites (old mines) for the proposed action. However, long-term impacts are considered low due to the

implementation of a data recovery plan and documentation of the informational content of the sites. Additional archaeological sites would be impacted by Haul Road Alternative Route A.

A predictive air quality analysis was performed to respond to concerns for PM_{10} (particulate matter) released during mining operations. Results indicate that predicted annual PM_{10} violations of air quality standards are not likely to occur.

Although mining operations will exceed ambient noise levels at the mine pit, noise levels at other receptors in the area would be below ambient conditions (and therefore inaudible) except at two individual residences located near the permit area.

ENVIRONMENTAL PROTECTION MEASURES

During construction and operation of the Little Rock Mine Project, measures will be taken to minimize impacts to air, land, and water resources and to prevent undue or unnecessary degradation of the environment within and around the project area. Protection measures will be taken to comply with all appropriate federal and state air quality and water quality standards and solid waste disposal requirements. All project-related roads will be constructed and maintained to provide adequate drainage and to minimize damage to soil and water resources.

This Record of Decision expressly incorporates each of the environmental protection measures identified in Chapter 2 of the Final EIS, and as follows, to be implemented by PDMC as part of the Plan of Operations.

PDMC will implement a reclamation plan or plans to comply with all applicable rules and standards set forth by the BLM, Forest Service, and the New Mexico Mining Act. The goal of reclamation is to effectively mitigate impacts to the natural, human, and cultural environment. The intent of the reclamation planning and its implementation will be to satisfy BLM, Forest Service, and state of New Mexico guidelines. PDMC will meet the requirements of all approving agencies. Some of the requirements may be met through submittal of separate plans based on potentially unique requirements of the various agencies involved. A Closeout Plan as required by New Mexico Mining Act Rule 506 was submitted by PDMC to the New Mexico Mining and Minerals Division on August 29, 1997.

BLM reclamation guidelines applicable to the Little Rock Mine Project are described in Chapter 2 of the EIS. The Forest Service guidelines are similar. These pertain to the following categories:

- Waste Management
- Subsurface Stabilization
- Site Stability
- Water Management
- Soil Management
- Erosion Prevention
- Revegetation
- Visual Resources
- Site Protection
- Site Specific Standards

Specific environmental protection measures to be implemented as part of the proposed action, as stated in Chapter 2 of the Final EIS, include the following:

The primary goal of site reclamation is to ensure long-term protection of the environment and to return the areas subjected to past and proposed mining and related disturbances to post-mining land uses. BLM reclamation standards for post-mining land uses may include wildlife habitat, livestock grazing, dispersed recreation, and wilderness access. Therefore, to provide for these uses it is important that safety hazards and man-made landscape features be an integral focus of the reclamation plans. For the Little Rock Mine, the post-closure land use will likely include a combination of wildlife habitat and livestock grazing.

Proposed mining will occur in an area which has significant disturbance from previous mining activities. Mining on the site will be by open-pit mining methods using existing equipment at Tyrone Mine. Existing leach stockpiles on the site will be relocated to Phelps Dodge property for further processing and disposal; processing facilities left from past mining activities are proposed for remediation. Existing stockpiles from mining will be among the first sites remediated when mining is permitted. The stockpiled leach material and contaminated subsoils will be removed and the area revegetated. No permanent facilities will be constructed at the mine site with the exception of possible diversion structures. All dewatering equipment, pipelines, power lines, and other facilities will be removed from the mine site once operations have ceased.

The haul road will not connect to any public access road, and will be designed to allow for two-way traffic for 190-ton-class haul trucks. This 135-foot-wide roadway will include side safety berms, drainage, and a maximum gradient of 10 percent. Cuts and fills will be minimized and all drainage crossings will be designed to pass the peak run-off of a 10-year, 24-hour storm event. Culverts and drainage pipes, where used, will be constructed and maintained to avoid plugging, collapsing, or erosion. A drainage ditch and sediment catch basins will be constructed to control erosion and sedimentation.

The haul road will be surfaced with gravel and watered during haul operations to reduce dust emissions to achieve an average silt loading of 5 percent. Sufficient watering will be applied to control particulate emissions outside of the permit area. Sufficient watering or chemical suppressants will be applied, providing minimum dust control efficiencies of 95 percent. Haulage speeds will average approximately 15 mph over the life of the project but will not exceed 33 mph. The maximum speed would only be attained when trucks are empty and on a flat road; speeds will be lower than average on other portions of the route (i.e., downhill empty, uphill empty, downhill loaded, and uphill loaded).

Following completion of mining activities, reclamation and revegetation, the road will be reclaimed by softening the cuts and fills, installing water bars, removing culverts, and restoring the drainage to its predisturbance configuration to the extent practical. The roadbed will be ripped to reduce compaction, mulch and/or topsoil spread, and revegetated with native plant seed mix. Shaping and grading can range from outsloping the road surface to full restoration of the disturbance to the original contours on a site specific basis.

All mine overburden (waste) will be hauled to the designated stockpile area and may later be used for reclamation. All suitable leach material mined from the site will be hauled to existing, permitted leach facilities on PDMC property. Remaining solid waste products from mining operations will be negligible since most maintenance, office, and managerial functions will be located at the Tyrone Mine. These materials will be disposed of at Tyrone's permitted landfill.

Salvageable soil will be removed from the areas to be disturbed or developed (i.e., mined) to the extent practicable. This soil will be stored in stockpiles, stabilized, and seeded with native vegetation seed mixes to protect from wind and water in the proposed waste stockpile area. Topsoil will be segregated from waste rock at the waste stockpile site. Since the mine site is located in an area of rugged terrain with outcrops of granite, there is a minimal amount of topsoil anticipated to be available. Table 4-3 in the FEIS provides an estimate of the volume amount of salvageable soil to be used for reclamation.

The hydrologic portion of the reclamation plan will be designed in accordance with the state of New Mexico, and federal and local water quality standards. All aspects of the operation that can cause pollution will be investigated so that each phase of the operation can be designed to avoid contamination. Water from California Gulch may be diverted around the mine area and diverted into Whitewater Canyon or a tributary. The detailed reclamation plan will include designs for surface water runoff; erosion controls; and a water monitoring program to ensure compliance with state, federal, and local water quality standards.

Final reclamation of the site will comply with regulations in place at the time of closure. Closure will be consistent with the regulations of the various agencies. The BLM and Forest Service will have input into the desired post-mining land use for State Mining Act purposes, and the BLM and Forest Service will determine reclamation needs for their respective lands with input from the New Mexico Mining Act Reclamation Bureau.

The pit walls will not be recontoured but rather left with barrier berms at the top, where appropriate. Pit walls and benches will gradually fill with rubble from higher benches. Water from surface runoff and ground water seepage may accumulate in the bottom of the pit after closure. Potential hazards to public safety will be minimized by using measures such as berming and fencing.

Stormwater control structures established during mining operations will be reclaimed or left in place as directed by the New Mexico Environment Department, U.S. Army Corps of Engineers, and other permitting agencies. If reclamation is required, channels, ponds, and sediment traps will be recontoured and revegetated. Diversion ditches or channels may require protective measures such as gabions or boulder reinforcement.

As a part of the closure plan, monitoring of revegetation and reclamation will be an integral part of assuring a successful reclamation program. Revegetation will use native plant species. Recommended seed mixes by soil type are given in Table 2-3 in the FEIS. Reseeding is recommended during the months of June or July to coincide with the rainy season. Mulching will be used as a part of all seeding projects.

PDMC will comply with applicable laws and regulations (including the Migratory Bird Treaty Act) concerning waterfowl and other migratory birds during and after operation of the Little Rock Mine Project.

Mine Plan of Operations

BLM personnel will monitor the Little Rock Mine Project for compliance with the Plan of Operations as required under Title 43 CFR, part 3809.3-6, as directed by the BLM Manual 3809-Surface Management,

and as described in the Final EIS. BLM personnel will be responsible for all inspection and enforcement procedures under 43 CFR 3809. Forest Service personnel will be responsible for monitoring the National Forest land under 36 CFR 228.

Monitoring of Revegetation and Reclamation

Monitoring will be performed on a monthly basis for the first year and then at broader intervals as prescribed by the BLM and New Mexico Mining and Minerals Division for subsequent years. Forest Service monitoring will be on an "as-needed" basis. During monitoring, reclamation will be evaluated. Revisions to the reclamation plan may be necessary.

Water Quality

The New Mexico Environment Department (NMED) is responsible for most aspects of surface and ground water quality monitoring. Phelps Dodge will obtain all necessary approvals and/or permits from the appropriate agencies including NMED and the U.S. Army Corps of Engineers (Sections 401, 402, and 404 of the Clean Water Act) prior to beginning construction and operations.

Bonding

PDMC will provide financial assurance to comply with 43 CFR 3809 and applicable state requirements.

MITIGATION AND MONITORING

The environmental protection measures, as described above and in Chapter 2 of the Final EIS, will be implemented to mitigate potential environmental impacts that may result from construction and operation of the proposed action. The reclamation and closeout plans will also provide detailed and specific measures to mitigate potential impacts. All mitigation will be implemented and enforced. Monitoring will be conducted as described above under Environmental Protection Measures. All practicable means to avoid or minimize environmental harm from the selected alternative have been adopted.

NMED is responsible for enforcement to ensure that applicable air quality standards are maintained. Two potential air quality mitigation and monitoring measures were identified in Chapter 4, Section 4.11 of the Final EIS—Measure A-1 to relocate a portion of the haul road; and Measure A-2 to implement a meteorological monitoring-based control strategy. Since no violations of air quality standards are predicted to occur for the proposed action, these measures are not prescribed as part of the ROD.

SUMMARY OF PUBLIC INVOLVEMENT

The views of the public have been sought throughout the planning and decision-making process. A detailed description of public involvement is contained in Chapter 5 of the Final EIS.

Notice of Intent to Prepare an EIS

The Notice of Intent (NOI) to Prepare the Draft EIS was published in the *Federal Register* on December 16, 1994. The NOI announced the public scoping meeting that was held in Silver City, New Mexico, on January 5, 1995. Following the publication of the NOI, a "scoping packet" of information was mailed out during December 1994 to approximately 375 agencies, groups, and individuals.

Scoping

Forty-seven oral and written comments were received during the scoping period for the Little Rock Mine Project Draft EIS. Major issues and concerns that were identified in scoping comments included water quality and quantity, effects to wildlife and riparian areas, concern for erosion control and reclamation, cumulative impact, and potential employment effects.

A public open house meeting was held in Silver City on April 12, 1995. The purpose of the meeting was to provide an update on the EIS studies, resource information, and comments heard during scoping.

Informal consultation and coordination with affected interested parties, federal and state agencies, and the general public continued throughout scoping and the preparation of the Draft and Final EIS. Federal agencies included the U.S. Fish and Wildlife Service, Environmental Protection Agency (EPA), and others. New Mexico state agencies included primarily the Environment Department, Energy and Minerals Department - Mining and Minerals Division, Department of Game and Fish, and State Historic Preservation Office.

Cooperating Agency

Because the proposed mining operation would involve neighboring lands managed by the Gila National Forest, the BLM requested that the USDA Forest Service be a formal cooperating agency for the Little Rock Mine Project EIS. A Memorandum of Agreement between the BLM, Forest Service, and PDMC was executed in July 1994 that identified the Forest Service as a cooperating agency.

The Draft EIS

The Little Rock Mine Project Draft EIS was filed with the EPA and released to the public on August 15, 1996. The Notice of Availability for the Draft EIS and Public Hearing announcement was published in the *Federal Register* on August 21, 1996. Copies of the Draft EIS were distributed to over 300 individuals, agencies, and organizations.

Public Comments on the Draft EIS

On September 25, 1996, a public hearing was held at the Grant County Courthouse in Silver City, New Mexico to receive oral and written comments on the Draft EIS. Thirteen individual oral comments were

recorded at the formal hearing, and 37 letters were received during the comment period that closed October 15, 1996.

Twenty-six of the comments required no response—these were either statements of support for the proposed action, non-substantive, or other comments. The remaining substantive comments were primarily related to the effects of the existing Tyrone Mine operations, ground water and pit lake water quality, air quality, and cumulative effects.

The analysis and response to the substantive comments resulted in the following: (a) modifications to the air resources impact analysis; (b) expansion of the cumulative analysis area to include the Tyrone Mine area of operations; (c) corrections, additions, and improvements to the Draft EIS; and (d) factual corrections of the text, maps, and other data.

Consultation and Coordination for the Final EIS

Following the close of the public comment period on the Draft EIS, formal and informal consultation and coordination with the cooperating agency (Gila National Forest) the applicant (Phelps Dodge), state agencies, and the general public continued as BLM prepared the Final EIS.

Notice of Availability of the Final EIS

The BLM filed the Final EIS with the EPA on September 18, 1997 and the Final EIS was distributed to over 400 individuals, agencies, and organizations on the BLM's mailing list at that time. The EPA published notice of the filing in the *Federal Register* on September 26, 1997 and the BLM Notice of Availability for the Final EIS was published in the *Federal Register* on September 24, 1997. The 30-day availability period for the Final EIS ended on October 27, 1997.

Public Availability of this Record of Decision

Copies of this ROD were sent out to all those on the mailing list for the Little Rock Mine Project Final EIS. Additional copies of this ROD are available from:

BLM - Las Cruces District Office
1800 Marquess Street
Las Cruces, NM 88005
(Contact: Juan Padilla, (505) 525-4376)

Gila National Forest
3005 E. Camino del Bosque
Silver City, NM 88061

BLM - New Mexico State Office
P.O. Box 27115
1474 Rodeo Road
Santa Fe, NM 87502

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